

Patients' Profiles and Perceptions of Complete Dentures in a University Dental Clinic

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This study investigated factors associated with perceptions of complete dentures (CDs) among patients presenting at a university dental clinic. A retrospective chart review of all new edentulous patients presenting at the Athens University School of Dentistry Removable Prosthodontics Clinic between 1993 and 2002 (n = 2,526) was completed. More than half of CD-wearing patients were dissatisfied with their dentures at the initial visit. Dissatisfaction was correlated with current use of denture adhesives and less time spent edentulous and was more prevalent among females. Factors affecting patients' adaptation to and satisfaction with CDs should be considered at CD fabrication and follow-up. *Int J Prosthodont* 2012;25:145–147.

Despite advances in the science and practice of dentistry during the last few decades, edentulism rates persist, and conventional complete dentures (CDs) remain the most common treatment option. It is well established that patients' acceptance of and satisfaction with CDs are strong determinants of a successful treatment.¹ In this domain, individual or patient-level factors have gained substantial attention. Personality type, marital status, social factors, expectations, and patient-provider relationships are some of these reported correlates.^{1,2} Demographic characteristics such as age and sex and previous denture experience have also been examined with equivocal findings. The motivation behind this investigation was to add to the knowledge base by exploring whether sociodemographic characteristics and dental history

information are correlates of patients' perceptions of their existing CDs. To this end, the aim of the present study was to investigate factors associated with satisfaction with existing CDs among patients presenting to a university dental clinic over a 10-year period.

Materials and Methods

This investigation relied on a 10-year retrospective chart review of all new edentulous patients admitted to the Athens University School of Dentistry Removable Prosthodontics Clinic, Athens, Greece, between 1993 and 2002 (n = 2,526). Dental history data included the year of the last extraction, current use of CDs, and history of relining existing CDs. Time edentulous was computed by subtracting the year of the last extraction from the year of interview and was used as a proxy of CD use duration. Behaviors analyzed included frequency of CD cleaning, nighttime denture removal, and current use of denture adhesive. Perceptions regarding existing CDs were assessed with a binary item, where 1 = satisfied and 0 = not satisfied. Graphic methods and summary estimates were used for data presentation. Data analyses relied on bivariate (Kruskal-Wallis and Fisher exact tests, using a conventional $P < .05$ criterion) and multivariate methods based on log-binomial modeling.

Results

New patient admissions followed a decreasing trend between 1993 (n = 340) and 2002 (n = 115), with the latter representing a decrease in admissions by almost 50% compared to 2001 (Fig 1). Seventy percent of patients had existing complete dentures

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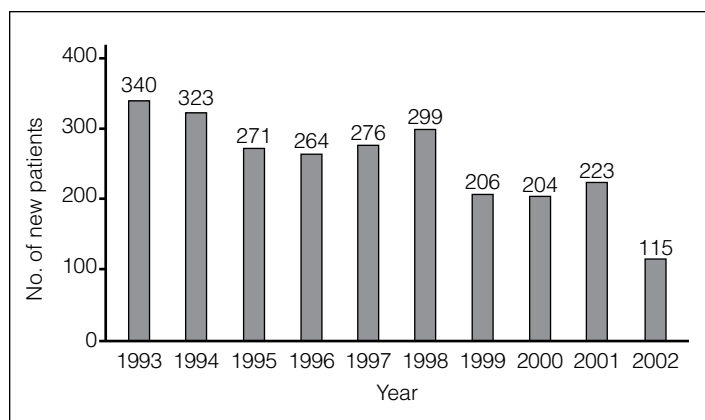


Fig 1 Longitudinal trend of the admission of new edentulous patients in the University of Athens School of Dentistry Removable Prosthodontics Clinic between 1993 and 2002.

Table 1 Demographic Characteristics and Denture-Wearing Status Among All New Edentulous Patients (n = 2,526)

	N	%*
Sex		
Female	1,359	53.8
Male	1,167	46.2
Missing	0	–
Education (y, categoric)		
≤ 6	67	4.4
7–9	850	55.6
10–12	468	30.6
≥ 13	145	9.5
Missing	996	–
Current denture wearer		
Yes	1,762	69.8
No	764	30.2
Missing	0	–

*Proportions were calculated among those with nonmissing information.

(Tables 1 and 2). Among those, 59% were not satisfied with their existing prostheses, and this proportion did not vary substantially over time. Among those with existing dentures, there were 331 (23%) patients who reported relining of their CDs and 227 (15%) who reported use of a denture adhesive at the initial visit (Table 3). Patients reporting satisfaction with CDs had been edentulous for a median of 7 years versus 4 years among those who reported dissatisfaction (Fisher exact, $P < .05$) (Table 4). In multivariate analysis, the markedly reduced prevalence of satisfaction (approximately two-thirds) associated with the use of denture adhesives persisted (Table 5). Moreover, time edentulous was associated with increased satisfaction, whereas females were 13% less likely to report satisfaction.

Discussion

Estimates of reported satisfaction with CDs range between 65% and 90% among diverse populations and patient groups.¹ The observation that more than half of new patients presenting to the specific university clinic were not satisfied with their existing prostheses is consistent with a problem-initiated care-seeking pattern among this group, and was not surprising. Perceived and reported dissatisfaction likely correspond to a spectrum of parameters, including esthetics, functional limitations, or discomfort of varying

degrees. Reduced satisfaction reported by females may be attributed to different esthetic or functional criteria and expectations between male and female patients. The finding of an association between denture adhesive and decreased satisfaction with removable prostheses can be attributed to denture adhesive use likely being a proxy of poor denture fit and performance. Adhesives are a useful adjunct in CD services, with specific roles in both fabrication and postinsertion phases. Time edentulous was positively associated with satisfaction, likely representing a functional and psychologic process of adaptation to denture use, which is in accordance with previous findings.^{3,4}

Acknowledging this study's limitations, these findings may not be generalized to other university or private clinic populations with different socio-demographic characteristics and patient expectations. Furthermore, the reliance on a single binary item to assess patient satisfaction with CDs, even though more comprehensive approaches have been developed, limits the discriminatory ability of this measurement. However, the significance of evaluating perceived satisfaction with CDs, while subjective in nature, is well supported and warranted.⁵ Along these lines, clinicians should be aware of factors that are associated with and potentially predictive of patients' adaptation to and satisfaction with CDs, such as those identified in the present study.

Table 2 Age of Participants Assessed (y, quintiles)

	N	Mean (SD)*
Q1 (range: 17–56)	480	48.9 (6.5)
Q2 (range: 57–63)	469	60.3 (1.9)
Q3 (range: 64–68)	467	66.0 (1.3)
Q4 (range: 69–74)	486	71.2 (1.7)
Q5 (range: 75–95)	437	79.1 (4.1)
Missing	187	–

SD = standard deviation.

*Overall mean: 65.0 ± 10.8 years.

Table 4 Patient Characteristics Related to Denture Satisfaction

	Satisfied	Not satisfied	P*
Age (y)			.5
Mean (SE)	66.6 (0.4)	66.7 (0.3)	
Median	67	67	
Time edentulous (y)			
Mean (SE)	9.5 (0.5)	7.6 (0.4)	.001
Median	7	4	

SE = standard error of the mean.

*P values are two-sided and correspond to Fisher exact tests of equality of medians.

Conclusion

In this study of edentulous patients presenting to a university clinic in a 10-year period, it was found that more than half of these patients were dissatisfied with their existing dentures at the initial visit. Dissatisfaction correlated with current use of denture adhesives and less time being edentulous and was more prevalent among females. Factors associated with patients' adaptation to and satisfaction with CDs should be considered at CD fabrication and follow-up.

References

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Table 3 Distribution of Denture Use– and Patient-Related Variables with Perceptions of Existing CDs (n = 2,526)

	Satisfied with existing denture		P†
	Yes (n, row %)*	No (n, row %)*	
Existing denture has been relined			.001
Yes	100 (32.9)	204 (67.1)	
No	447 (43.7)	575 (56.3)	
Use of denture adhesive			< .001
Yes	45 (21.3)	166 (78.7)	
No	518 (45.4)	622 (54.6)	
Nighttime denture removal			.4
Never	248 (43.0)	329 (57.0)	
Sometimes/always	358 (40.8)	520 (59.2)	
Frequency of denture cleaning			.5
Less than daily	88 (45.6)	105 (54.5)	
Daily	309 (41.2)	441 (58.8)	
More than daily/after every meal	126 (42.0)	174 (58.0)	

*Column figures may not add up to total because of missing data.

†P values are two-sided and correspond to Fisher exact tests of equivalence within strata of categorical covariates.

Table 5 Multivariate Log-Binomial Regression Results of Patients' Perceptions of Existing CDs (n = 1,762)

	Adjusted* prevalence ratio† (95% CL)
Sex	
Males	Referent
Females	0.87 (0.74, 1.01)
Time edentulous (coded in decades)	1.09 (1.01, 1.17)
Use of denture adhesive	
No	Referent
Yes	0.36 (0.24, 0.54)
Existing denture has been relined	
No	Referent
Yes	0.90 (0.73, 1.11)

CL = confidence limits.

*Model included disjoint indicator terms for age (coded as quintile-categorical).

†Prevalence ratio estimates below 1 correspond to increased likelihood of being not satisfied with existing dentures.

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